EMERGENCY RESPONSE REPORT

FOR

CROP PRODUCTION SERVICES 8050 BRYAN ROAD ROANOKE, JEFFERSON DAVIS PARISH, LOUISIANA

Prepared for

U.S. Environmental Protection Agency Region 6

Linda Carter, Project Officer 1445 Ross Avenue Dallas, Texas 75202

Contract No. EP-W-06-042 TDD No. TO-0001-09-08-04 WESTON W.O. No. 20406.012.001.0463.01 NRC No. N/A FPN: N/A CERCLIS ID: N/A EPA OSC: William Rhotenberry START-3 PTL: Robert Sherman

Submitted by

Weston Solutions, Inc.

Robert Beck, VP, P.E., Program Manager 70 NE Loop 410, Suite 600 San Antonio, Texas 78216 (210) 308-4300

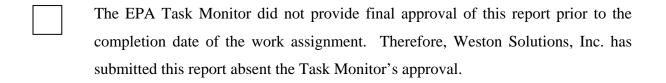
29 October 2009

PROJECT SUMMARY

This final report describes the United States Environmental Protection Agency (EPA) response actions for the Crop Production Services response. The response occurred at a property owned by Crop Production Services located north of Roanoke, Jefferson Davis Parish, Louisiana. The detailed report follows this page, and all attachments are provided as separate portable document format (PDF) files.

The Louisiana Department of Environmental Quality (LDEQ) notified the EPA of chemicals stored in potentially unsafe conditions inside of a building located north of the town of Roanoke, Jefferson Davis Parish, Louisiana. EPA tasked Weston Solutions, Inc. (WESTON_®), the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, to respond to the incident, document response activities, and verify that the property owner was addressing the situation. On 13 August 2009, START-3 member Robert Sherman responded to the incident and met with EPA On-scene Coordinator (OSC) William Rhotenberry; provided written and photographic documentation of response activities; and coordinated response activities with LDEQ, the Civil Support Team (CST), and Louisiana State Police (LSP). START-3 procured laboratory services to analyze seven samples collected by LSP investigators.

This final report was prepared by Weston Solutions, Inc. under Contract No. EP-W-06-042 for EPA Region 6. The Task Monitor was EPA OSC William Rhotenberry, and the START-3 Project Team Leader (PTL) was Robert Sherman.



X The EPA Task Monitor has provided final approval of this report. Therefore, Weston Solutions, Inc. has submitted this report with the Task Monitor's approval.

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1. PROJECT IDENTIFICATION

Date: 29 October 2009

To: William Rhotenberry, On-Scene Coordinator (OSC)

U.S. Environmental Protection Agency (EPA) Region 6, Prevention and Response Branch

Through: Linda Carter, Project Officer (PO)

EPA Region 6, Program Management Branch

Through: Robert Beck, VP, P.E., Weston Solutions, Inc. (WESTON_®)

EPA Region 6, Superfund Technical Assessment and Response Team (START-3)

Program Manager

From: Robert Sherman, WESTON

EPA Region 6, START-3 Project Team Leader

Subject: Emergency Response Report: Crop Production Services

8050 Bryan Road

Roanoke, Jefferson Davis Parish, Louisiana

Contract No. EP-W-06-042 TDD No. TO-0001-09-08-04 W.O. No. 20406.012.001.0463.01

NRC No. NA FPN: N/A

CERCLIS ID: N/A

Latitude: 30. 320674° North Longitude: 92.741615° West

Geographic coordinates of the incident location were determined by START-3 members using Geographic Information System (GIS) software based on the World Geodetic System-1984.

2. INTRODUCTION

The Louisiana Department of Environmental Quality (LDEQ) notified the United States Environmental Protection Agency (EPA) Region 6 Prevention and Response Branch (PRB) of chemicals stored in potentially unsafe conditions inside of a building located north of the town of Roanoke, Jefferson Davis Parish, Louisiana (Attachments A and B). The EPA activated Weston Solutions, Inc. (WESTON®), the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, to respond to the incident. START-3 was tasked to observe and

document response activities; verify that the landowner was addressing the situation, and coordinate with other responding agencies. EPA On-Scene Coordinator (OSC) William Rhotenberry mobilized to the response to provide assistance to the responding agencies.

3. BACKGROUND

Crop Production Services, Inc. (CPS) is the owner of a warehouse at 8050 Bryan Road near Roanoke, Louisiana. At the time of this incident, the warehouse was rented to Stillwater Resources, also known as TL2 Gas, who packaged chemicals under contract to the U.S. Department of Defense. According to LDEQ, the company mixed a specific chemical recipe and packaged it into cylinders for shipment to the Aberdeen Proving Grounds (APG) in Aberdeen, Maryland. The cylinders were then returned to Stillwater/TL2 Gas from APG. LDEQ stated that it was unclear whether the cylinders were returned completely empty. CPS notified the Louisiana Department of Environmental Quality (LDEQ) that Stillwater/TL2 Gas had stopped paying rent and had abandoned the Bryan Road facility. CPS contracted Clean Harbors to conduct an assessment at the facility in July 2009. According to the Clean Harbors report, approximately 600 cylinders were located at the CPS warehouse. Chemicals in the cylinders included hydrogen cyanide, arsenic pentafluoride, and phosgene. Clean Harbors reported that many of the cylinders were in poor condition. Following receipt of the Clean Harbors report, CPS forwarded the document to LDEQ who contacted LSP and EPA to inform them of the warehouse and its contents.

4. ACTIONS TAKEN

At 1800 hours on 12 August 2009, EPA OSC William Rhotenberry and START-3 Robert Sherman and attended a briefing with LSP, LDEQ, and the 62nd Louisiana Civil Support Team (CST) in Jennings, Louisiana. The LSP was the lead agency due to the potential hazard to the public. The LSP discussed the background and potential hazards of the site and the work proposed for the following day. The LSP planned to conduct an assessment of the facility to verify the Clean Harbors description of the building and to assess the hazards.

On 13 August 2009, EPA, START-3, LDEQ, LSP, and CST traveled to the site located at the intersection of Louisiana Highway 395 and Bryan Road, approximately 5 miles north of

Roanoke, Jefferson Davis Parish, Louisiana. The facility is surrounded by rice and sugar cane fields. The facility consists of a sheet-metal warehouse building, a wood-frame office building, and a barn. The site is not fenced.

The CST set up a decontamination line and support zones. Level A entry teams consisting of LSP, LDEQ, and CST personnel entered the sheet-metal warehouse building to conduct air monitoring and to assess the conditions inside. The entry teams did not report any elevated readings inside of the building; however, they did note cylinders in poor condition, confirming the Clean Harbors report.

LDEQ conducted perimeter air monitoring at several locations within 0.5 miles around the site. LDEQ monitored for volatile organic vapors and several gases including cyanide and chlorine and reported no readings above background.

CPS reported to EPA OSC Rhotenberry that they would contract Clean Harbors to conduct an emergency cleanup beginning on Monday, 17 August 2009, and that LSP and LDEQ would be present to monitor the cleanup activities. EPA OSC Rhotenberry released START-3.

EPA OSC Rhotenberry tasked START-3 to procure laboratory services to analyze samples collected by the LSP. On 20 August 2009, START-3 member Erik Hadwin retrieved seven samples that had been collected by LSP for evidence. Six of the samples were collected from drums, and one sample, labeled "back room," was collected from solid material on the floor. Four of the drum samples were liquid, and two of the drum samples and the back room sample were solid material. The samples were analyzed for pH, reactive cyanides, and total cyanides.

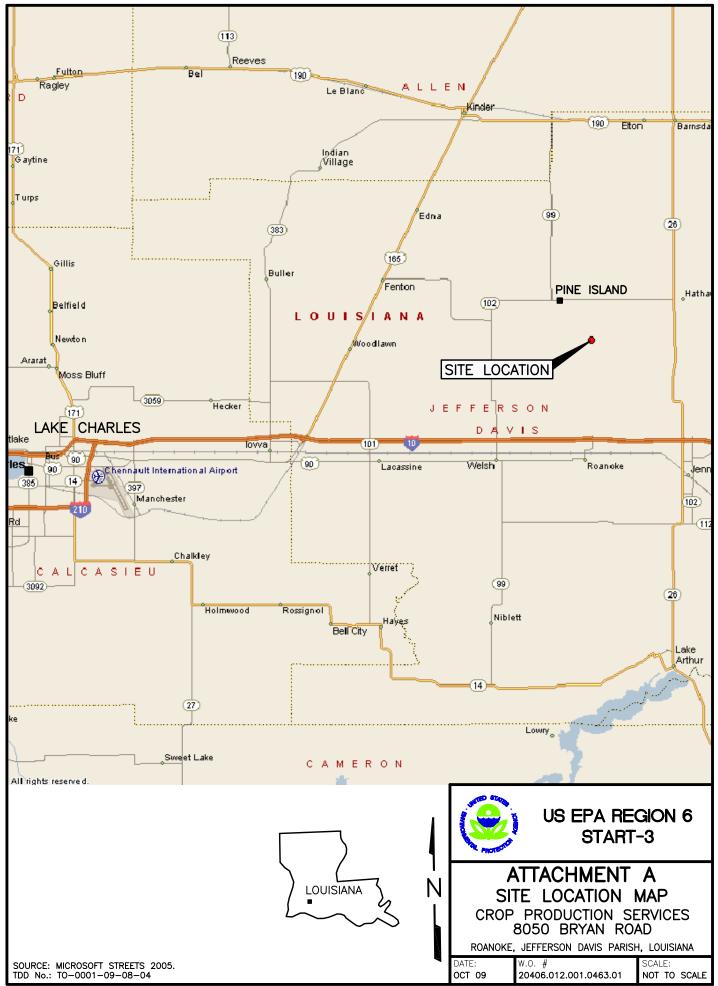
On 20 August 2009, LDEQ reported to START-3 that Clean Harbors had remediated the immediate hazard by removing the cylinders that were in poor condition. Some chemicals and cylinders remained in the warehouse building and were to be addressed at a later date. According to EPA OSC Rhotenberry, Crop Production Services, Inc. would complete the remaining site remediation activities.

This final report was prepared as part of the requirements of Technical Direction Document (TDD) No. TO-0001-09-08-04 and serves as documentation of work completed to date.

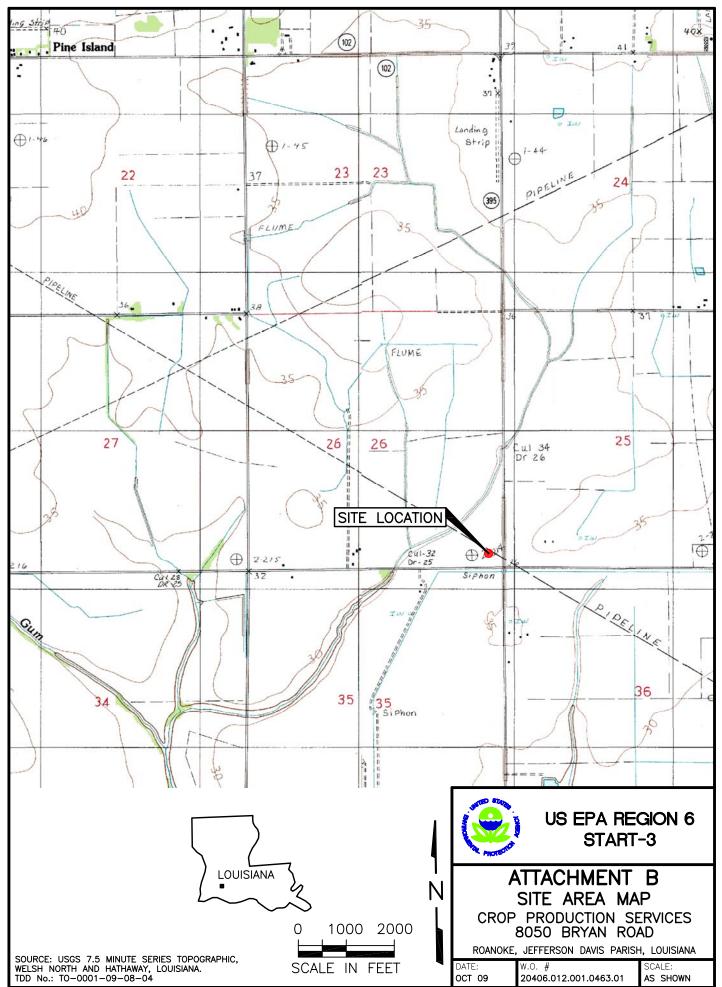
5. LIST OF ATTACHMENTS

- A. Site Location Map
- B. Site Area Map
- C. Analytical Results and Data Validation Report
- D. START-3 Site Logbook
- E. Pollution Reports (POLREPs)
- F. Digital Photographs
- G. TDD No. TO-0001-09-08-04 and Amendment A

ATTACHMENT A SITE LOCATION MAP



ATTACHMENT B
SITE AREA MAP



ATTACHMENT C ANALYTICAL RESULTS AND DATA VALIDATION REPORT

DATA QUALITY ASSURANCE REVIEW

SITE NAME Crop Pro	duction Services		
CERCLIS			
WORK ORDER NUMBER	R 20406.012.001.0463.01	TDD NUMBER	TO-0001-09-08-04
PROJECT NUMBER		SDG NUMBER	209082108
20406.012.001.0463.01, SD	STON®) has completed a QAG No. 209082108, Crop Proceed and/or pH by Gulf Coast Ar	luction Services. Sev	ven samples were analyzed
	SAMPLE NUM	MBERS	
DRUM 1	DRUM 7	BACK ROO	OM
DRUM 2	DRUM 3	DRUM 5	
DRUM 6		<u></u>	
		<u></u>	
		<u></u>	
		<u></u>	
		<u></u>	
following USEPA Contract Review (October, 1999), US Inorganic Data Review (July Guidelines for Chlorinated I Control Guidance for Remo	ated to determine if Quality (Laboratory Program National EPA Contract Laboratory Program (National Program), 2002), USEPA Contract Laboratory (ADioxin/Furan Data Review (ADIOXIN/Furan Data Review), and Activities (April, 1990), and (April 13, 1989). Specific	al Functional Guideling ogram National Func aboratory Program Na August, 2002), Quality and the Regional Proto	nes for Organic Data etional Guidelines for ational Functional y Assurance/Quality ocol for Holding Times,
REVIEWER Gloria J.	Switalski	DATE	September 29, 2009

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifier may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Addition qualifiers utilized by WESTON are H, L, K, B, Q, and D.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, "B", may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the "J" qualifier that indicates the bias in the reported results:

- L Low bias
- H High bias
- K Unknown bias
- Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

- R Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.
- N The analysis indicates the presence of analyte for which there is presumptive evidence to make a "tentative identification."
- D The concentration reported was determined in the re-analysis of the sample at a secondary dilution.

INORGANIC DATA EVALUATION

1. Analytical Method:

Samples were prepared and analyzed using the procedures specified in SW-846 Method 9012A for total cyanide; SW-846 Chapter 7.3.3.2 for reactive cyanide; and SM 4500 H+B/SW-846 Methods 9040A for pH.

2. Holding Times:

All samples met established holding time criteria for total cyanide, reactive cyanide, and pH with the following exceptions. Liquid samples DRUM 2, DRUM 3, DRUM 5, and DRUM 6 were distilled three days beyond the holding time for total cyanide since the original distillation may have been saturated. In addition, due to the sample matrix, the liquid samples for cyanide were not received at pH >12. Liquid samples DRUM 2, DRUM 3, DRUM 5, and DRUM 6 were not analyzed "immediately" for pH. No qualifications are placed on the cyanide or pH data for liquid samples DRUM 2, DRUM 3, DRUM 5, and DRUM 6 since these are waste samples and holding time criteria do not apply since the samples had been maintained in the drums for an unknown period of time.

3. Calibration:

Cyanide initial calibration included a blank and at least three standards and initial calibration verification results fell within the control limits of 85% to 115% of the true value. Correlation coefficients for cyanide were greater than 0.995. No qualifications are placed on the data.

4. Continuing Calibration:

All cyanide results fell within the control limits of 85% to 115% of the true value. No qualifications are placed on the data.

5. Blanks:

A. Laboratory Blanks:

No target analytes were detected in calibration and preparation blanks associated with this analytical package. No qualifications are placed on the data.

B. Field Blanks:

No field blanks were submitted with this analytical package. No qualifications are placed on the data.

6. Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD):

The recoveries for the LCS and/or LCS/LCSD were within the established control limits. No qualifications are placed on the data.

7. Duplicate Sample Analysis:

A. Laboratory Duplicate Analysis:

Sample DRUM 1 underwent duplicate analysis for the solid matrix for total cyanide and reactive cyanide. Sample DRUM 2 underwent duplicate analysis for the liquid matrix for pH. The Relative Percent Difference (RPD) values for the duplicate sample analysis were within QC criteria of less than 20% for aqueous samples and less than 35% for solid/waste samples for concentrations greater than five times the reporting limit (RL). For sample concentrations less than five times the RL, the QC criteria are within \pm the RL for the aqueous matrix or \pm two times the RL for the solid/waste matrix. No qualifications are placed on the data.

B. Field Duplicate Analysis:

No field duplicate samples were submitted with this analytical package. No qualifications are placed on the data.

8. Spiked Sample Analysis:

Sample DRUM 1 underwent matrix spike analysis for the solid matrix for total cyanide. The sample concentration exceeded the spike concentration by a factor of 4 times or more. No qualifications are placed on the data.

9. Sample Quantitation and Reporting Limits:

Concentrations of all reported analytes were correctly calculated.

All solid samples were analyzed at a 50-fold dilution for total cyanide, all liquid samples were analyzed at a 10, 20, or 100-fold dilution for total cyanide, and all solid samples were analyzed at a 10-fold dilution for reactive cyanide due to sample matrix. Reporting limits in these samples are elevated as a result of the dilutions performed.

10. Laboratory Contact

No laboratory contact was required.

11. Overall Assessment:

The analytical data is acceptable for use with no qualifications.

GCAL ID ' 20908210801	Client ID DRUM 1		Matrix Solid	 ollect Date 8/18/2009 1		\$3.50	celve Date/Time 20/2009 16:31	
SW-846 901	2A Reactivity CN							
Prep Date 08/26/2009 10	Prep Batch 0:00 417278	Prep Method 7.3.3.2		Dilution 10	Analyzed 08/27/2009 09:	By 21 AE	•	h
CAS#	Parameter			 Result	RI)L	REG LIMIT	Units
57-12-5R	Reactivity Cyanide			ND	100	00		mg/kg
SW-846 901	2A Cyanide							
Prep Date 08/24/2009 12	Prep Batch 2:30 417277	Prep Method SW-846 9012	Á	Dilution 50	Analyzed 08/27/2009 10:	By 54 AE	Analytical Batcl 417479	1
CAS#	Parameter		· · · · · · · · · · · · · · · · · · ·	 Result	RC)L	REG LIMIT	Units

4760

50.0

mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

Total Cyanide

57-12-5

85 9/8/9

GCAL ID 20908210802	Client ID DRUM 7		Matrix Solid	Collect Date/ 08/18/2009 1	(A) 10 PM		e Date/Time 009 16:31	
SW-846 9	012A Reactiv	rity CN						
Prep Dat 08/26/20		rch Prep Metho 7.3.3.2	đ	Dilution 10	Analyzed 08/27/2009 09:23	By AEL	Analytical 417471	Batch
CAS#	Parameter			Result	RDL	RE	G LIMIT	Units
57-12-5F	Reactivity C	yanide		ND	1000			mg/kg
SW-846 9	012A Cyanid	e						
Prep Dat 08/24/20		Prep Metho SW-846 901		Dilution 50	Analyzed 08/27/2009 10:56	By AEL	Analytical 417479	Batch

Result

3980

RESULTS REPORTED ON A WET WEIGHT BASIS

Parameter

Total Cyanide

CAS#

57-12-5

क्षेत्र विश्वी

REG LIMIT

RDL

50.0

Units

mg/kg

	Client ID BACK ROOM		Matrix Solid	 ollect Date 8/19/2009 1		2.22	re Date/Time 2009 16:31	
SW-846 9012	A Reactivity CN						-	
Prep Date 08/26/2009 10:0	Prep Batch 0 417278	Prep Method 7.3.3.2		Dilution 10	Analyzed 08/27/2009 09:24	8y AEL	Analytical Batch 417471	
CAS#	Parameter			 Result	RDL	R	EG LIMIT	Units
57-12-5R	Reactivity Cyanide			ND	1000			mg/kg
SW-846 9012	A Cyanide							
Prep Date 08/24/2009 12:3	Prep Batch 0 417277	Prep Method SW-846 9012	A	Dilution 50	Analyzed 08/27/2009 10:57	By AEL	Analytical Batch 417479	
CAS#	Parameter			 Result	RDL	R	EG LIMIT	Units

3900

50.0

mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

Total Cyanide

57-12-5



	·						
GCAL ID 20908210804	Client ID DRUM 2		Matrix Water	Collect Date 08/18/2009 1		Receive Date/Time 08/20/2009 16:31	
SW-846 901	2A Cyanide						
Prep Date 09/04/2009 13	Prep Batch 3:00 418045	Prep Method SW-846 9012/	A	Dilution 10	Analyzed 09/04/2009 16:29	By Analytical Ba	atch
CAS#	Parameter		All A	Result	RDL	REG LIMIT	Units
57-12- 5	Total Cyanide		÷ .	270	25.0		mg/L
SW-846 901 Prep Date 09/04/2009 14	2A Reactivity CN Prep Batch 4:45 418041	Prep Method 7.3.3.2		Dilution 1	Analyzed 09/04/2009 16:43	By Analytical Bo AEL 418057	ntch
CAS#	Parameter			Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide			ND	250		mg/L
SM 4500 H+	B/SW-846 9040A	рН					
Prep Date	Prep Batch	Prep Method		Dilution 1	Analyzed 08/21/2009 11:00	By Analytical Ba JPA 417204	itch
CAS#	Parameter			Result	RDL	REG LIMIT	Units
рН	На			<1	1.00	12.5	pH unit

& 9/28/7

GCAL ID 10908210805	Client ID DRUM 3	Ma trix Water	Collect Date/ 08/18/2009 1:	A ANGERGE	Receive Date/Time 08/20/2009 16:31	
SW-846 901	2A Cyanide					
Prep Date 09/04/2009 1:	Prep Batch 3:00 418045	Prep Method SW-846 9012A	Dilution 20	Analyzed 09/04/2009 16:40	By Analytical AEL 418050	Batch
CAS#	Parameter		Result	RDL	REG LIMIT	Units
57-12-5	Total Cyanide		1570	50.0	to a	mg/l
SW-846 901	2A Reactivity CN					· .
Prep Date 09/04/2009 1	Prep Batch 4:45 418041	Prep Method 7.3.3.2	Dilution 1	Analyzed 09/04/2009 16:44	By Analytical AEL 418057	Batch
CAS#	Parameter		Result	RDL	REG LIMIT	Unit
57-12-5R	Reactivity Cyanide		ND	250		mg/i
SM 4500 H+	-B/SW-846 9040A	pН				
Prep Date	Prep Batch	Prep Method	Dilution 1	Analyzed 08/21/2009 11:00	By Analytical JPA 417204	Batch
CAS#	Parameter		Result	RDL	REG LIMIT	Unite
На	pΗ·		<1	1.00	12.5	pH uni

39/8/9

GCAL ID 20908210806	Client ID DRUM 5	Matrix Water	Collect Date/ 08/18/2009 1			ve Date/Time 2009 16:31	
SW-846 90	12A Cyanide						
Prep Date 09/04/2009	Prep Batch 13:00 418045	Prep Method SW-846 9012A	Dilution 20	Analyzed 09/04/2009 16:41	By AEL	Analytical Batch 418050	
CAS#	Parameter		Result	RDL	F	REG LIMIT	Units
57-12-5	Total Cyanide		2040	50.0			mg/L
SW-846 90	12A Reactivity CN						
Prep Date 09/04/2009	Prep Batch 14:45 418041	Prep Method 7.3.3.2	Dilution 1	Analyzed 09/04/2009 16:46	By AEL	Analytical Batch 418057	
CAS#	Parameter		Result	RDL	F	REG LIMIT	Units
57-12-5R	Reactivity Cyanide		ND	250			mg/L

SM 4500 H+B/SW-846 9040A pH

	Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	Ву	Analytical I	Batch
				1	08/21/2009 11:00	JPA	417204	
÷	CAS#	Parameter	and a special control of the special control	Resuit	RDL	RE	G LIMIT	Units
	ρΗ	рН		<1	1.00		12.5	pH unit

83 9/28/9

O908210807	Client ID DRUM 6	Matrix Water	Collect Date 08/18/2009 1		Receive Date/Time 08/20/2009 16:31	
SW-846 901	2A Cyanide					
Prep Date 09/04/2009 1:	Prep Batch 3:00 418045	Prep Method SW-846 9012A	Dilution 100	Analyzed 09/04/2009 16:42	By Analytical Bate AEL 418050	:h
CAS#	Parameter		Result	RDL	REG LIMIT	Units
57-12-5	Total Cyanide		6820	250		mg/l
Drom Date	Dron Datab	Dran Mathad	Dilantina	A sa se la serie sel	Dr. Amointian Date	. h.
Prep Date 09/04/2009 14 CAS#	Prep Batch 4:45 418041 Parameter	Prep Method 7.3.3.2	Dilution 1 Result	Analyzed 09/04/2009 16:47 RDL	By Analytical Bate AEL 418057 REG LIMIT	ch Units
09/04/2009 14	4:45 418041		1	09/04/2009 16:47	AEL 418057	Unit
09/04/2009 14 CAS# 57-12-5R	4:45 418041 Parameter	7.3.3.2	1 Result	09/04/2009 16:47	AEL 418057	Unit
09/04/2009 14 CAS# 57-12-5R	4:45 418041 Parameter Reactivity Cyanide	7.3.3.2	1 Result	09/04/2009 16:47	AEL 418057	Unit mg/l
09/04/2009 14 CAS# 57-12-5R 6M 4500 H+	Parameter Reactivity Cyanide B/SW-846 9040A	7.3.3.2 pH	Result ND Dilution 1	09/04/2009 16:47 RDL 250 Analyzed	REG LIMIT By Analytical Bate	Units mg/l

82 9/8691



ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date 09/08/2009

GCAL Report 209082108



Deliver To Weston Solutions, Inc. 5599 San Felipe Suite 700 Houston, TX 77056 713-985-6636

Attn Kristie Kettler

Customer Weston Solutions, Inc.

Project Crop Production Services

CASE NARRATIVE

Client: Weston Solutions, Inc. Report: 209082108

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

CONVENTIONALS

In the SW-846 9012A (Total Cyanide) analysis, all samples had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the SW-846 9012A (Reactive Cyanide) analysis, all solid samples had to be diluted to bracket the concentrations within the calibration range of the instrument. All results are reported as ND due to the elevated reporting limit used for reactive cyanide.

In the SW-846 9012A (Total Cyanide) analysis for prep batch 417277, the MS recovery is not applicable because the spike was diluted out of the sample. The LCS recoveries are acceptable.

The four water samples were originally prepped with an initial volume of 5 mL. The water sample results were elevated and very similar to each other. Consequently, it was suspected that the distillate catch solution was saturated. The water samples were reprepped 3 days outside the 14-day holding time with an initial volume of 1 mL. The samples had been stored in a cooler at $4^{\circ} \pm 2^{\circ}$ C since the original prep date. The reanalysis results are higher than the original results. For both runs (original distillate and re-prepped distillates), all instrument QC and batch QC (with the exception of the MS noted above) were within the acceptable criteria ranges. For the water samples, the reanalysis results are reported.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates	the result was	Not Detected a	at the specified RDL

DO Indicates the result was Diluted Out

MI Indicates the result was subject to Matrix Interference TNTC Indicates the result was Too Numerous To Count

SUBC Indicates the analysis was Sub-Contracted

FLD Indicates the analysis was performed in the Field

PQL Practical Quantitation Limit
MDL Method Detection Limit
RDL Reporting Detection Limit

00:00 Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

- J Indicates an estimated value
- U Indicates the compound was analyzed for but not detected
- B (ORGANICS) Indicates the analyte was detected in the associated Method Blank
- B (INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Robyn Migues
Technical Director

GCAL REPORT 209082108

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20908210801	DRUM 1	Solid	08/18/2009 13:00	08/20/2009 16:31
20908210802	DRUM 7	Solid	08/18/2009 14:15	08/20/2009 16:31
20908210803	BACK ROOM	Solid	08/19/2009 14:30	08/20/2009 16:31
20908210804	DRUM 2	Water	08/18/2009 13:15	08/20/2009 16:31
20908210805	DRUM 3	Water	08/18/2009 13:30	08/20/2009 16:31
20908210806	DRUM 5	Water	08/18/2009 13:45	08/20/2009 16:31
20908210807	DRUM 6	Water	08/18/2009 14:00	08/20/2009 16:31

GCAL ID 20908210801	Client ID DRUM 1	Matrix Solid	Collect Date 08/18/2009 1		15000000	ve Date/Time 2009 16:31	
SW-846 90	12A Reactivity CN	7.157					
Prep Date 08/26/2009	Prep Batch 10:00 417278	Prep Method 7.3.3.2	Dilution 10	Analyzed 08/27/2009 09:21	By AEL	Analytical Batch 417471	
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
57-12-5R	Reactivity Cyanide		ND	1000			mg/kg
SW-846 90	12A Cyanide						
Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	Ву	Analytical Batch	
08/24/2009	12:30 417277	SW-846 9012A	50	08/27/2009 10:54	AEL	417479	
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
57-12-5	Total Cyanide		4760	50.0			mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20908210802	DRUM 7	Solid	08/18/2009 14:15	08/20/2009 16:31

Prep Date 08/26/2009 10:00	Prep Batch 417278	Prep Method 7.3.3.2	Dilution 10	Analyzed 08/27/2009 09:23	•	Analytical Batch 417471	
CAS#	Parameter		Result	RDL	REG	LIMIT	Units
57-12-5R	Reactivity Cyanide		ND	1000			mg/kg

SW-846 9012A Cyanide

Prep Date 08/24/2009 12	Prep Batch :30 417277	Prep Method SW-846 9012A	Dilution 50	Analyzed 08/27/2009 10:56	By AEL	Analytical Batc 417479	h
CAS#	Parameter		Result	RDL	F	REG LIMIT	Units
57-12-5	Total Cyanide		3980	50.0			mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20908210803	BACK ROOM	Solid	08/19/2009 14:30	08/20/2009 16:31

Prep Date 08/26/2009 10:00	Prep Batch 417278	Prep Method 7.3.3.2	Dilution 10	Analyzed 08/27/2009 09:24	By AEL	Analytical Batch 417471	
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
57-12-5R F	Reactivity Cyanide		ND	1000			mg/kg

SW-846 9012A Cyanide

Prep Date 08/24/2009 12:30	Prep Batch 417277	Prep Method SW-846 9012A	Dilution 50	Analyzed 08/27/2009 10:57	By AEL	Analytical Batch 417479	1
CAS# I	Parameter		Result	RDL	R	EG LIMIT	Units
57-12-5	otal Cyanide		3900	50.0			mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20908210804	DRUM 2	Water	08/18/2009 13:15	08/20/2009 16:31
SW-846 90	012A Cyanide			

Prep Date 09/04/2009 13:00	Prep Batch 418045	Prep Method SW-846 9012A	Dilution 10	Analyzed 09/04/2009 16:29		analytical Batch 18050	
CAS# F	arameter		Result	RDL	REG L	LIMIT	Units
57-12-5 T	otal Cyanide		270	25.0			mg/L

Prep Date 09/04/2009 14:4	Prep Batch 5 418041	Prep Method 7.3.3.2	Dilution 1	Analyzed 09/04/2009 16:43	By AEL	Analytical Batch 418057	
CAS#	Parameter		Result	RDL	R	REG LIMIT	Units
57-12-5R	Reactivity Cyanide		ND	250			mg/L

SM 4500 H+B/SW-846 9040A pH

Prep Date	Prep Batch	Prep Method	Dilution 1	Analyzed 08/21/2009 11:00	By JPA	Analytical Bat 417204	tch
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
рН	pН		<1	1.00		12.5	pH unit

GCAL ID 20908210805	Client ID DRUM 3	Matrix Water	O8/18/2009 1				
SW-846 90	12A Cyanide				74.37		
Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	Ву	Analytical Batch	
09/04/2009	13:00 418045	SW-846 9012A	20	09/04/2009 16:40	AEL	418050	
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
57-12-5	Total Cyanide		1570	50.0			mg/L

Prep Date 09/04/2009 14:49	Prep Batch 5 418041	Prep Method 7.3.3.2	Dilution 1	Analyzed 09/04/2009 16:44	By AEL	Analytical Batch 418057	
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
57-12-5R	Reactivity Cyanide		ND	250			mg/L

SM 4500 H+B/SW-846 9040A pH

Prep Date	Prep Batch	Prep Method	Dilution 1	Analyzed 08/21/2009 11:00	By JPA	Analytical Bate 417204	:h
CAS#	Parameter		Result	RDL	R	EG LIMIT	Units
pН	pН		<1	1.00		12.5	pH unit

GCAL ID Client ID	Matri	Collect Date/Time	Receive Date/Time
20908210806 DRUM 5	Water	08/18/2009 13:45	08/20/2009 16:31

Prep Date 09/04/2009 13:00	Prep Batch 418045	Prep Method SW-846 9012A	Dilution 20	Analyzed 09/04/2009 16:41	By AEL	Analytical Batch 418050	
CAS# P	arameter		Result	RDL	REG	LIMIT	Units
57-12-5 T	otal Cyanide		2040	50.0			mg/L

Prep Date 09/04/2009 14:45	Prep Batch 418041	Prep Method 7.3.3.2	Dilution 1	Analyzed 09/04/2009 16:46	By AEL	Analytical Batch 418057	
CAS#	Parameter		Result	RDL	F	REG LIMIT	Units
57-12-5R	Reactivity Cyanide		ND	250			mg/L

SM 4500 H+B/SW-846 9040A pH

Prep Date	Prep Batch	Prep Method	Dilution 1	Analyzed 08/21/2009 11:00	By JPA	Analytical Bato 417204	h
CAS#	Parameter		Result	RDL	R	REG LIMIT	Units
рН	pН		<1	1.00		12.5	pH unit

	Client ID DRUM 6	Matrix Water	O8/18/2009 1			ve Date/Time 2009 16:31	
SW-846 9012	A Cyanide		TEST				
Prep Date 09/04/2009 13:0	Prep Batch 0 418045	Prep Method SW-846 9012A	Dilution 100	Analyzed 09/04/2009 16:42	By AEL	Analytical Batch 418050	
CAS#	Parameter		Result	RDL	R	REG LIMIT	Units
57-12-5	Total Cyanide		6820	250			mg/L
	A Reactivity CN						
Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch	
09/04/2009 14:4	Prep Batch 5 418041	Prep Method 7.3.3.2	1	09/04/2009 16:47	AEL	418057	Units
500 ECCU. CO ST. 700-885.00	Prep Batch		Dilution 1 Result		AEL		
09/04/2009 14:4 CAS# 57-12-5R	Prep Batch 5 418041 Parameter Reactivity Cyanide	7.3.3.2	1 Result	09/04/2009 16:47	AEL	418057	
09/04/2009 14:4 CAS# 57-12-5R	Prep Batch 5 418041 Parameter	7.3.3.2	1 Result	09/04/2009 16:47	AEL	418057	
09/04/2009 14:4 CAS# 57-12-5R	Prep Batch 5 418041 Parameter Reactivity Cyanide	7.3.3.2	1 Result	09/04/2009 16:47	AEL	418057	Unit:

Result

<1

RDL

1.00

REG LIMIT

12.5

Units

pH unit

CAS#

рΗ

Parameter

рΗ

General Chemistry Quality Control Summary

	Matrix	Solid			Solid			
	Willia				00110		0	
CM OAC DOADA Dece	Alle CAL	Units	mg/kg	Spike	D		Contro	ol
SW-846 9012A Reac	tivity CN	Result	RDL	Added	Result	% R	Limits %	/ D

Analytical Batch	417471	Client ID	DRUM 1		753003DUP		
Prep Batch	417278	GCAL ID	20908210801		753744		
Prep Method	7.3.3.2	Sample Type Prep Date Analytical Date Matrix	SAMPLE 08/26/2009 10:00 08/27/2009 09:21 Solid		DUP 08/26/2009 10:00 08/27/2009 09:22 Solid		
SW-846 9	9012A Rea	activity CN	Units Result	mg/kg RDL	Result	RPD	RPD Limit
57-12-5R	Reactivity Cyar	nide	904	1000	908	0.4	25

Analytical Batch	417479	Client ID	MB417277			LCS417277		
Prep Batch	417277	GCAL ID	753737			753738		
Prep Method	SW-846	Sample Type	Method Blank			LCS		
	9012A	Prep Date	08/24/2009 12:30			08/24/2009 12:30		
		Analytical Date	08/27/2009 10:51			08/27/2009 10:52		
		Matrix	Solid			Solid		
SW-84	6 90124	Vanido	Units	mg/kg	Spike	Result		Control
SW-846 9012A Cyanide		Result	RDL	Added	Result	% R	Limits % R	
57-12-5	Total Cyanide		ND	0.1000	1.00	0.8950	90	80 - 120

General Chemistry Quality Control Summary

57-12-5	Total Cyanide	-	ND	0.1000	5.00	4.30	86	79.5 -120.4
SW-84	SW-846 9012A Cyanide			mg/kg RDL	Spike Added	Result	% R	Control Limits % R
A CONTRACTOR		Matrix	Solid			Solid		
		Analytical Date	08/27/2009 10:51			08/27/2009 10:53		
	9012A	Prep Date	08/24/2009 12:30			08/24/2009 12:30		
Prep Method	SW-846	Sample Type	Method Blank			LCSHI		
Prep Batch	417277	GCAL ID	753737			753739		
Analytical Batch	417479	Client ID	MB417277			LCSHI417277		

57-12-5	Total Cyanide		4760	50.0	100	5400	635*	60 - 120
SW-84	SW-846 9012A Cyanide		Units Result	mg/kg RDL	Spike Added	Result	% R	Control Limits % R
Prep Batch Prep Method		GCAL ID Sample Type Prep Date Analytical Date Matrix				753740 MS 08/24/2009 12:30 08/27/2009 10:54 Solid		
Analytical Batch	417479	Client ID	DRUM 1			753003MS		

Analytical Batch	417479	Client ID	DRUM 1		753003DUP				
Prep Batch	417277	GCAL ID	20908210801		753741				
Prep Method	SW-846	Sample Type	SAMPLE		DUP				
	9012A	Prep Date	08/24/2009 12:30		08/24/2009 12:30				
		Analytical Date	08/27/2009 10:54		08/27/2009 10:55				
		Matrix	Solid		Solid				
SW-84	6 9012A	Cyanide	Units Result	mg/kg RDL	Result	RPD	RPD Limit		
57-12-5	Total Cyanide		4760	50.0	4870	2	25		

General Chemistry Quality Control Summary

Analytical Batch	418050	Client ID	MB418045			LCS418045		
Prep Batch	418045	GCAL ID	757536			757537		
Prep Method	SW-846	Sample Type	Method Blank			LCS		
300	9012A	Prep Date	09/04/2009 13:00			09/04/2009 13:00		
		Analytical Date	09/04/2009 16:26			09/04/2009 16:26		
		Matrix	Water			Water		
SW-84	6 9012A (- - - - -	Units	mg/L	Spike	Result		Control
377-04	0 30 12A	yaniu e	Result	RDL	Added	Result	% R	Limits % R
57-12-5	Total Cyanide	•	ND	2.50	10.0	10.6	106	80 - 120

57-12-5	Total Cyanide	MANAGE S	ND	2.50	50.0	46.8	94	80 - 120
SW-84	6 9012A	Cyanide	Units Result	mg/L RDL	Spike Added	Result	% R	Control Limits % R
Prep Batch Prep Method	418045	GCAL ID Sample Type Prep Date Analytical Date Matrix	757536 Method Blank 09/04/2009 13:00 09/04/2009 16:26 Water			757538 LCSHI 09/04/2009 13:00 09/04/2009 16:27 Water		
Analytical Batch	418050	Client ID	MB418045			LCSHI418045		

Analytical Batch	418057	Client ID	MB418041			LCS418041			LCSD418041			
Prep Batch	418041	GCAL ID	757525			757526			757527			
Prep Method	7.3.3.2	Sample Type	Method Blank			LCS			LCSD			
		Prep Date	09/04/2009 14:45			09/04/2009 14:45			09/04/2009 14:45			
		Analytical Date	09/04/2009 16:32			09/04/2009 16:33			09/04/2009 16:36			2
		Matrix	Water			Water			Water			
CIAL DAG C	012A D	eactivity CN	Units	mg/L	Spike	Decult		Control	Dogult			RPD
344-040 8	O IZA RE	eactivity Civ	Result	RDL	Added	Result	% R	Limits % R	Result	% R	RPD	Limit
57-12-5R	Reactivity Cy	anide	ND	250	2500	112	4	1 - 20	116	5	4	20

Analyst: A62

Date: 8-27-09

HBN #17471/417472/4174

Batch # 8063 | 8064 | 8065

CHLORIDE	300.0/9251	CYANIDE	335.4/9012A
CCV Lot #		CCV Lot #	20900499
CCV Expiration Date		CCV Expiration Date	11-09
ICV/LCS Lot #		ICV/LCS Lot #	NA
ICV Expiration Date		ICV Expiration Date	NA
0.5M Ferric Nitrate Lot #		Phosphate Buffer Lot #	776-99-7
Mercuric Thiocyanate Lot #	27.12	Pyridine-Barbituric Acid Lot #	20900568
Calibration Date	y (###	Chloramine T Lot #	803-1-4
Calibration Expiration Date		0.25N NaOH Lot #	803-1-2
		Calibration Date	7-10-09
	<u>.</u>	Calibration Expiration Date	11-09
PHENOLICS	420.4/9066	N+N/NITRATE/NITRITE	353.2
CCV Lot #		NO3 CCV Lot #	
CCV Expiration Date		CCV Expiration Date	
ICV/LCS Lot #	3/3/2	NO2 CCV Lot #	
ICV Expiration Date		CCV Expiration Date	
Phenol Buffer Lot #	- 10	NO3 ICV/LCS Lot #	
4-Aminoantipyrine Lot #		ICV Expiration Date	
Calibration Date		NO2 ICV/CCV Lot #	
Calibration Expiration Date		ICV Expiration Date	
		Ammonium Chloride Buffer	-5-6
		Sulfanilamide Color Reagent	
TOTAL PHOSPHORUS	365.1	N+N Calibration Date	
CCV Lot #		N+N Calibration Expiration Date	
CCV Expiration Date		NO2 Calibration Date	
ICV/LCS Lot #		NO2 Calibration Expiration Date	
ICV Expiration Date		Column Efficiency (90-110%)	selection and
Ascorbic Acid Lot#		LCS NO3 X 100	
0.11N H2SO4 Lot #		LCS NO2	
Molybdate Color Lot #	THE		
Calibration Date		_	
Calibration Expiration Date			

Reviewed By: Smc 8/27/09

Revision 1: 5/2/07

Date: 09/10/2009

Original Run Filename: Original Run Author's Signature:

Current Run Filename:

Current Run Author's Signature:

Description:

OM_08-27-2009_09-04-34.OMN created 08/27/2009 09:04:34

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OM_08-27-2009_09-04-34.omn last modified 08/27/2009 09:32:25
[AEL]

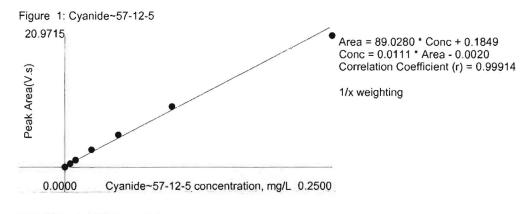
Default New Run

<u> </u>		Channel 1					
Sample	Rep.	Cyanide~57-			Detection Time	MDF	
Sample	rep.	Conc.	Area	Height	Detection Time	MOP	
		(mg/L)	(Vs)	(V)			30
1800	1_	0.0517	4.8241	0.2553	08/27/2009@09:05:20		10370
	Conc:	0.0500					
Calil	oration:	Table/Fig. 1					
1900	1	-0.0027	-0.0697	-0.0172	08/27/2009@09:06:12		۷ .
Knowr	Conc:	0.0000		ALL MAN			
753742 ms	1	-0.0021	-0.0122	-0.0032	08/27/2009@09:07:07		
753743 LCS	1	0.3533	3.3500	0.1720	08/27/2009@09:08:01	10.00	7%
20900210801	1	0.9840	88.5522	4.3206	08/27/2009@09:08:53	PR!	
753744	1	0.9865	88.7842	4.3292	08/27/2009@09:09:46	RR	above high std
20908210802	1	0.9867	88.7950	4.3286	08/27/2009@09:10:38	PR/	3
20908210803	1	0.7069	63.6696	3.2276	08/27/2009@09:11:30	1	
753745 MB	1	-0.0160	-1.2591	-0.0022	08/27/2009@09:12:21		
753746 LCS	1	0.3666	3.4690	0.1825	08/27/2009@09:13:15	10.00	7 <i>9</i> 0
20008210804	- 1	0.2065	26.8085	1.4231	08/27/2009@09:14:08	22	
20908210805	1	0.7761	69.8793	3.5294	08/27/2009@09:15:01	RP	
1800	1	0.0538	5.0117	0.2689	08/27/2009@09:15:51		10800
Knowr	Conc:	0.0500					
1900	1	-0.0020	-0.0032	0.0007	08/27/2009@09:16:45		∠
	Conc:	0.0000	(4)		ATTENNED TO SELECT A SELECT MANAGEMENT		Type -
20008210806	1	0.5572	50.2190	2.5889	08/27/2009@09.17.44		
20908210807	1	0.5315	47.9140	2.4747	08/27/2009@09:18:39	_	
20908243005	1	-0.0018	0.0158	0.0019	08/27/2009@09:19:34		0
753747 Dup		-0.0017	0.0283	0.0025	08/27/2009@09:20:33		905 Reading x 5 x 1 910 930 L1000 mg/1cgs
20908210801		1.8086	16.4212	0.8660	08/27/2009@09:21:24	10.00	9051
753744 Dup	1	1.8165	16.4921	0.8700	08/27/2009@09:22:19	10.00	910
20908210802	2 1	1.8641	16.9193		08/27/2009@09:23:18	10.00	930) L1000 mg 1cas
20908210803		1.2742	11.6212	0.6140	08/27/2009@09:24:09	10.00	635/
20008210804	-1	0.4604	8.4466	0.4486	08/27/2009@09:25.02	5.00	RP
20908210805	1-1-	1.3709	12.5702	0.6613	08/27/2009@09:25:56	10:00	ep
1800	1	0.0538	5.0102	0.2663	08/27/2009@09:26:49		10873
	Conc:	0.0500					
1900	1	-0.0038	-0.1679	-0.0115	08/27/2009@09:27:40		4
Known	Conc:	0.0000					
20908210806	1	1.0043	9.1973	0.4862	08/27/2009@09:28:31	10.00	e r
20908210807	1	0.9565	8.7675	0.4672	08/27/2009@09:29:26	10.00	RP
1800	1	0.0539	5.0218	0.2662	08/27/2009@09:30:18		108%
Known	Conc:	0.0500					
1900	1	-0.0005	0.1348	0.0035	08/27/2009@09:31:09		4
	Conc:	0.0000					RP- reprep sus

Table 1: Cyanide~57-12-5

							incretion in concern
	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
	0.2500	1	20.9715	1.0796	6.6	07/10/2009	14:12:54
2	0.1000	1	9.6292	0.5057	-6.0	07/10/2009	14:13:43
	0.0500	1	5.1507	0.2632	-11.1	07/10/2009	14:14:34
	0.0250	1	2.7784	0.1449	-15.3	07/10/2009	14:15:24
-	0.0100	1	1.1526	0.0582	-7.2	07/10/2009	14:16:15
	0.0050	1	0.5993	0.0299	4.9	07/10/2009	14:17:05
ĵ	0.0000	1	0.0542	0.0015		07/10/2009	14:17:55

Date: 09/10/2009



Date: 08/27/2009

Original Run Filename:

Original Run Author's Signature:

[AEL]

Current Run Filename: Current Run Author's Signature:

Description:

OM_08-27-2009_10-48-36.OMN created 08/27/2009 10:48:36

OM_08-27-2009_10-48-36.OMN last modified 08/27/2009 11:00:38 [AEL]

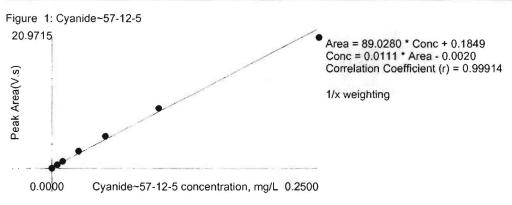
Default New Run

		Channel 1		
Sample	Rep.	Cyanide~57 -12-5 (mg/L)	Detection Time	MDF
1800	1	0.0480	08/27/2009@10:49:29	
Known	Conc:	0.0500		
Calib	ration:	Table/Fig. 1	COL	
1900	1	-0.0029	08/27/2009@10:50:25	
Known	Conc:	0.0000		
753737 BIA	1	-0.0020	08/27/2009@10:51:24	
753738 L/C Law	. 1	0.0179	08/27/2009@10:52:20	
753739 Les H11	1	0.0859	08/27/2009@10:53:13	
20908210801	. 1	9.5250	08/27/2009@10:54:07	50.00
753740 ms	1	10.7956	08/27/2009@10:54:59	50.00
753741 000	1	9.7353	08/27/2009@10:55:49	50.00
20908210802	1	7.9537	08/27/2009@10:56:41	50.00
20908210803	1	7.8069	08/27/2009@10:57:37	50.00
1800	1	0.0538	08/27/2009@10:58:26	
Known	Conc:	0.0500		
1900	1	-0.0019	08/27/2009@10:59:18	
Known	Conc:	0.0000		

leading x 5 x FV IW

Table 1: Cyanide~57-12-5

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	0.2500	1	20.9715	1.0796	6.6	07/10/2009	14:12:54
2	0.1000	1	9.6292	0.5057	-6.0	07/10/2009	14:13:43
3	0.0500	1	5.1507	0.2632	-11.1	07/10/2009	14:14:34
4	0.0250	1	2.7784	0.1449	-15.3	07/10/2009	14:15:24
5	0.0100	1	1.1526	0.0582	-7.2	07/10/2009	14:16:15
6	0.0050	1	0.5993	0.0299	4.9	07/10/2009	14:17:05
7	0.0000	1	0.0542	0.0015		07/10/2009	14:17:55



CYANIDE DISTILLATION EPA 335.2 CLP-M/EPA 335.3/SW-846 9012A/SM 4500-CN

	MATRIX V	VATER SOLID						HBN	the state of the s	417277	
	CLIENT	CLIENT ID	GCAL ID	VOLANT	FINAL VOLUME	CHLO Yes N	RINE lo	SULFIDE Yes No	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
	QC ACCOUNT	MB for HBN 417277 [INPR/8002]	753737	10	100		/		МВ		1.25M NaOH;
	QC ACCOUNT	LCS for HBN 417277 [INPR/8002]	753738	10	100				LCS		
;	QC ACCOUNT	LCSHI for HBN 417277 (INPR/800	753739	10	100		/		LCSHI	57.74	Ca(OCI2):1
	3031	DRUM 1	20908210801	1	100			1	SAMPLE		
,	QC ACCOUNT	DRUM 1(753003MS)	753740	1	100				MS		0.1 NaS2O3:1
	QC ACCOUNT	DRUM 1(753003DUP)	753741		100				DUP		7
	3031	DRUM 7	20908210802		100		/		SAMPLE		Bi(NO3):2,3
	3031	BACK ROOM	20908210803		,00				SAMPLE	1 1 1 1 1 1 1	
					ALTE A						Ascorbic Acid:2,3
0						+		\vdash		A TANK	- · · ·
1					 	+				1 1	Sulfamic Acid:23
3			-			+ +				No. 15 12	1:1 H2SO4:2
4				-		\vdash		- -			307-18-
5						+	100		1.		2.5M MgCI:2
6										100	8-40-
7 8						+					Zn (C2H3O2):3
9						+ +		\vdash	-		0.1% Methyl
Q						+	-				Red:3
•										7.34,	Acetate
2											Buffer:3
3						\top					5% NaOH
4										1 1 1 1 1 1 1 1	(CLP):4
5											1.0N
6				3-19-					†	1 1 1 N 1 (C)	Nacities 3
y	pe of cyani DMMENTS:	de prep: CNC-Total	=2, CNAC-Ame	nable=1, C	NFR-Free=3	B, CNC	-CL	P=4			

BALANCE	ID:	48308		TEMP:	NA	,
LCS/MS SPIKE ID	8-38-16	CONC:	10000m		Analyst Review	DATE
LCS LOW VOL	100uB	LCS HIGH VOL	5000 LCS CLP VOL	NA	OPA	8-24.9
MS WATER VOL	NA	MS SOLID VOL	(DMI			110
·					Secondary Review	DATE
SPIKE WITNESS	NA					

REACTIVITY GYANIDE AND COLLIDE DIGITAL SW-846 7.3.3.2, 7.3.4.2

	START	8-26-9/101	S END	11:30			ALYST	SOA	
				Latin Land		CN	R HBN:	417278	a a Roy
	ATRIX	WATER SOLID)				SR	HBN:		Minte.
	CLIENT	CLIENT ID	GCAL ID	VOL/WT)	FINAL	VOLUME	SAMPLE TYPE	COMMENTS	LOT NO:
1	QC ACCOUNT	MB for HBN 417278 [INPR/8003]	753742	£9 +10/0	10	23	МВ		0.01N H2SO4
2	QC ACCOUNT	LCS for HBN 417278 [INPR/8003]	753743 8	2/2/10	1	2.3	LCS		8-40
3	3031	DRUM 1	20908210801	1,0	1	20	SAMPLE		Sodium Sulfide
1	QC ACCOUNT	DRUM 1(753003DUP)	753744	1,2	1 7 3	00	DUP		8-41-
5	3031	DRUM 7	20908210802			20	SAMPLE		1N Sodium
3	3031	BACK ROOM	20908210803	1,0	> 1	0	SAMPLE		Hydroxide:
7					-				
3					-				
10		-						 -	-
11								 	
12					-	-	-	+	1
13				7)					
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15								 	
16						6			1
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				The	_				4
22							-		
23 24				4.	6.2				4
24 25					-		 		<u> </u>
26			-					1	1
	OMMENTS								\leftarrow
	CIAIIAICIAIC)				**			
									`
									4
	_		-						4

BALANCE	ID: 48	308	TEMP:	TEMP:					
SULFIDE SPIKE ID	8-41-9	CONCENTRATION	1000000	Analyst Review	DATE				
SULFIDE LCS VOLUME	10mb			JAA	8-26.9				
CYANIDE LCS SPIKE ID	205 08230	CONCENTRATION	LODDARAM						
CYANIDE LCS VOLUME	allams			Secondary Review	DATE				
SPIKE WITNESS	NA		*	01	11070				
		·			0 0/9				

LACHAT STANDARD IDs

5014 **CHLORIDE** 300.0/9251 CYANIDE 335.4/9012A CCV Lot# 20900499 CCV Lot # **CCV** Expiration Date **CCV** Expiration Date 11-1-09 ICV/LCS Lot# ICV/LCS Lot # NA ICV Expiration Date **ICV** Expiration Date NA 736-99-7 0.5M Ferric Nitrate Lot # Phosphate Buffer Lot # 20900607 Mercuric Thiocyanate Lot # Pyridine-Barbituric Acid Lot # 803-3-3 Calibration Date Chloramine T Lot# 803-1-2 Calibration Expiration Date 0.25N NaOH Lot # 8-31-09 Calibration Date Calibration Expiration Date 11-1-09 **PHENOLICS** 420.4/9066 N+N/NITRATE/NITRITE 353.2 CCV Lot # NO3 CCV Lot# **CCV** Expiration Date **CCV** Expiration Date ICV/LCS Lot# NO2 CCV Lot# **ICV** Expiration Date **CCV Expiration Date** Phenol Buffer Lot # NO3 ICV/LCS Lot # 4-Aminoantipyrine Lot # **ICV** Expiration Date Calibration Date NO2 ICV/CCV Lot # Calibration Expiration Date **ICV** Expiration Date Ammonium Chloride Buffer Sulfanilamide Color Reagent **TOTAL PHOSPHORUS** 365.1 N+N Calibration Date CCV Lot # N+N Calibration Expiration Date **CCV** Expiration Date **NO2 Calibration Date** ICV/LCS Lot # NO2 Calibration Expiration Date Column Efficiency (90-110%) **ICV** Expiration Date Ascorbic Acid Lot # LCS NO3 X 100 0.11N H2SO4 Lot # LCS NO2 Molybdate Color Lot # Calibration Date Calibration Expiration Date

Reviewed By: Bmc 9/10/09 (8087, 8084, 8089)

Analyst: A

Batch # 2027

Date: 9-4-09 HBN #417942/41794

415050

Revision 1: 5/2/07

Date: 09/04/2009

Original Run Filename:

Original Run Author's Signature:

Current Run Filename: Current Run Author's Signature:

Description:

OM_09-04-2009_16-23-28.OMN created 09/04/2009 16:23:28

[AEL]

OM_09-04-2009_16-23-28.OMN last modified 09/04/2009 16:50:39

[AEL]

Default New Run

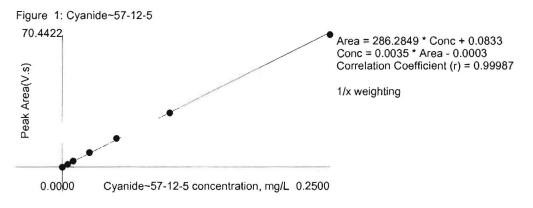
		Channel 1	and the State of t	The second second	
Sample	Rep.	Cyanide~57	Detection Time	MDF	
		-12-5 (mg/L)			
1800	1	0.0488	09/04/2009@16:24:12		97
Known		0.0500			
	ration:	Table/Fig. 1			
1900	1	-0.0004	09/04/2009@16:25:10		
Known	Conc:	0.0000			
MB	1	-0.0024	09/04/2009@16:26:04		
LCS L	1	0.0212	09/04/2009@16:26:59		106
LCS H	1	0.0935	09/04/2009@16:27:52		74
LCSD H	1	0.0936	09/04/2009@16:28:42		24
20908210804	1	0.5392	09/04/2009@16:29:32	10.00	270
20908210805	1	3.1602	09/04/2009@16:30:23	10.00	
20908210806	1	3.3217	09/04/2009@16:31:14	10.00	-AA
20908210807	1	5.4242	09/04/2009@16:32:04	10.00	
MB	1	-0.0071	09/04/2009@16:32:56	7177	
LCS	1	0.2245	09/04/2009@16:33:48	10.00	47
1800	1	0.0505	09/04/2009@16:34:46		101
Known	Conc:	0.0500			
1900	1	-0.0009	09/04/2009@16:35:39		
Known	Conc:	0.0000	A CONTRACTOR		
LCSD	1	0.2318	09/04/2009@16:36:33	10.00	57
20908210804 R	1	0.0202	09/04/2009@16:37:23	10.00	-aa
20908210805 R	1	0.0105	09/04/2009@16:38:16	10.00	-AR
20908210806 R	1	0.0614	09/04/2009@16:39:07	10.00	-RA
20908210807 R	1	0.0349	09/04/2009@16:39:57	10.00	-AR
20908210805	1	3.1388	09/04/2009@16:40:49	20.00	157
20908210806	1	4.0748	09/04/2009@16:41:44	20.00	2040
20908210807	1	13.6441	09/04/2009@16:42:35	100.00	682
20908210804 R	1	0.0191	09/04/2009@16:43:26	777	9.55
20908210805 R	1	0.0050	09/04/2009@16:44:16		2.5
1800	1	0.0489	09/04/2009@16:45:08		98
Known	Conc:	0.0500			- A - A
1900	1	-0.0016	09/04/2009@16:45:59		1
Known	Conc:	0.0000		1	1
20908210806 R	1	0.0549	09/04/2009@16:46:49		27.4
20908210807 R	1	0.0344	09/04/2009@16:47:39		17. 3
1800	1	0.0491	09/04/2009@16:48:30	3 - 7	98
Known		0.0500			10
1900	1	-0.0042	09/04/2009@16:49:23		
Known	Conc.	0.0000	25.2 //2000@10.10.20		1

Reading X S X 100

Table 1: Cyanide~57-12-5

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	0.2500	1	70.4422	3.9877	1.7	08/31/2009	16:04:32
2	0.1000	1	28.5507	1.6856	0.6	08/31/2009	16:05:27
3	0.0500	1	15.1280	0.8954	-5.1	08/31/2009	16:06:19
4	0.0250	1	7.6695	0.4526	-5.9	08/31/2009	16:07:15
5	0.0100	1	3.2046	0.1828	-8.8	08/31/2009	16:08:14
6	0.0050	1	1.4702	0.0740	2.9	08/31/2009	16:09:07
7	0.0000	1	-0.1280	-0.0449		08/31/2009	16:10:01

Author: AEL ' Date: 09/04/2009



CYANIDE DISTILLATION

MATRIX: WATER SOLII)			HBN:_	-	cha	1	118045	1 / / Late - 1 / L
GCAL SAMPLE NO.	CLIENT	INITIAL	FINAL VOLUME	CHLC		SULF	-	COMMENTS	REAGENT LOT NO:
MB 757536		1.0	100		1		1	Revien	1.25M NaOH: '
LUS L 757537		100	100		0		0		
usH757538.		100	100		V				Ca(OCI ₂):
usoH757539		100	100		V		U		
20901210804 20901210805 2908210806 2901210806		100	100		U		0		0.1NaS ₂ O ₃ :'
10909210905		1.0	100		V				
2908210806	50 (1990)	100	100		1		1		Bi(NO _{3):}
19801210807		bo	100		V		0		Park 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
									Ascorbic Acid: 2,3
		1000-1000							
									Sulfamic Acid: 2,3
									E 2262
									1:1 H ₂ SO ₄ :
									307-18-
									2.5M MgCl:2
	,								$Zn(C_2H_3O_2)$:
			_						
									0.1% Methyl Red:
									Acetate Buffer: 3
									5% NaOH (CLP):⁴
									1.0N NaOH: 1,2,3
ype of cyanide prep CNC-1 OMMENTS:	otal CNAC-	Amenable ', (CNFR-Free`	', CNC-	-CLP"				1-39-
Ommervio.									
CS/MS SPIKE ID: 8-4/	-/3 cong	looppn	7.				100		170
	ECS HIGH/VC		· LCS	CLP V	VOL:	k	M	Analyst Rev	riew: U

REACTIVITY CYANIDE AND SULFIDE DISTILLATION

				3VV-04	16 7.3.3.2, 7.3.4.2			
	DATE	9-4-	-9	TIME	14:45	ANALYST	41801	
		1				HBN #:	41801	+1
N	ATRIX (WATER	SOLID				<u> </u>	
	CLIEN		CLIENT ID	GCAL ID	INITIAL VOL/WT	FINAL VOLUME	COMMENTS	REAGENT LOT NO:
1	MB	1 - 21		100		100	RAHM	8-40-9
2	Las			100		100		Sodium Sulfide
3	Los			100		100		067182
4	20901	210904		1.0		100	P. 70	00/182
5	29082	10805		1-0		100	1 51	1 N Sodium Hydroxide
6	20905	210806		100		100		8-31-10
7	2092	10805 10805 110806		1.0		100		
8	\$100 Mg							
9								
10								
11								
12								
13	-							
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25				a a				
26							And a separate separa	
COI	MMENTS	:				-		
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		_						
				LOON OF MERCEN				

SULFIDE SPIKE ID	CONCENTRATION		Analyst Review	DATE
SULFIDE LCS		-		0 1/ -
VOLUME GYANDELGS			pur	9-9-9
SPIKE IK 907330	CONCENTRATION	1000000		
VOLUME 4/12 2/296		,	Secondary Review	DATE U - NA
SPIKE WITNESS WAY	,			

pH LOGBOOK

JPA 8.279 Analyst/Date:_

QC Limits: True Value ± 0.05 pH units

Slope	Limits:	92-108
-------	---------	--------

	Calibration Time	Buffer	Lot#	Expiration Date	Ca 1	ibration Le	evels 3	Slope		Check Found
1	11500	4.00	082273	5/20	V. 00	720	10-3	97	5.01	5:02
2		1.00		54						
3		10.09	082607	~					7	
4		1.00	C56213	5/0-	1,00	4.00	70	99		
5				-12.9		1				
6										

		PH RESUL	rs		HBN #:	4/120
Client	Sample ID	Time	Analyst	Result 1	Result 2	Result 3
	20908210804	11:00	JPA	0,15	0.15	8-21-2- 5+2
	20908210864Dyp			0.14	0.15	17
	20908210805		1 10	0,20	0.20	277
	20908210806		E.	0,37	0.38	+17
	20908210807			0.10	0.10	473
<u> </u>					, ,	
	Keported all sample	s as 4/	intext	freld. A	mc 8/21/09	
$\overline{}$	4	-			-	
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		1.				
				0	-	
			<u> </u>	/ /	P	
		 				
					7	
		-				
		-				1

			the second second second	
Result 1 - Aliquot 1	(Repeat with successive aliquots of ea	ach sample until re	esults agree within 0.1 pl	H units)
Result 2 - Aliquot 2			Secondary Review: _	Bonc 8/21/09
Result 3 - Aliquot 3	QC Check Lot#	180250	Exp. ala	
	QC Check Lot#	· ·	Exp	

Revision 0, 04/11/07



weston/3031/20908210E

Clean Harbors Environmental Services, Inc. 1 Hill Ave., Braintree, MA 02184						CHAIN OF CUSTODY RECORD Sample Custodian - (781) 849-1800							Page of						
Client: WESTO	4 50L	utio	امر Project ا	Name: CR	7 90	isopo	iction	4 S	ERVIC	G_Wo	ork Order/P	e.o.#: _	622 622		Box 7-5	403 Date:	20	Auc 2	009
Report To: WEST	on 50	Lutto	Address	H9 4	324	5	. 54	TERL	2001	1-01	LREST	35	NUF	R A Pr	none #: _	225	- 29	7-54	02
		1							134		97.3			016					
	100		Sampling Information				, vi		120	1 1	alysis				_	#		SHES Samp	ole #
Sample I.D.	Date	Time	Station Location	Sample Matrix	TCLP VOA	TCLP BNA	TCLP METALS	PCBs	TOTAL CYANDE	KEACTIVE	Coegosiui		i Ze			of con.	i Sant A		
Drum 1	8/18/18	1300	Chemical Building	Solid	1	40	101	1	X	X	_			24.5		a	1A	, 18	Y
Drum 2	8 18 04	1315	Chemital Bilding	Linvid			1		X	4	X					2	AC	28	4
Drum3	8/18/09	1330	Chemital Building	Liquid		1	1/0	1	X	X	X	-	7	1	在	3	3 A	3B	5
Drum5	8/18/0	1345	Chemical J Building	Liquid		/	XP	NO	X	X	X	-				2	5A	5 B	4
Drumb	8/18/01	1400	Building	Liquid		/	1	1	X	X	K	-		12	_	2	6A .	6B	7
Jeun 7	8/18/19	1912	Chemital Building	Solid	/			1	x	X	-				2	2	7A	7B	Z
back Room	8/19/09	1430	Building	Solid	/			,	X	X	-					2	1,	2	3
				-		56	T	Jor	أسا	OR	TER	12	26	50	2	05	812	26 26	Aug 20
								10-10					LSP-	ES	0				
	00		0 1	VOA Vial			7			CC.		70	СОММЕ	ENTS: (F	ax Num	ber, caut	ions, spec	al instruction	ns)
Relinquished by Sampler:_ Date: 8 20 0	(lines	Time:	1151 Am	Glass Bottle	14 - 44				X	X	X		RE	pon	T	LR	SUL.	7 27	0
Received by: FEIK	Hon?		1.51	Plastic Bottle								dil						M	
Date: 8/70/0' Relinquished by: ER		Time:	1111	Pres.					C	C	C	15 %	0	DOF	SHE	יוכ	ARI G	vot Si	ex.
Date:		Time:	1631	Volume				17.4	802	802	802	2					wis	SUMTE	plution
Received by: Hand Control Date: 4 - 2009	Malle	Time;	1691	Preservation Ke B – Filtered, C – E – NaThiosulfa	- Sample	chilled, I	D - NaOl		/ r.	V 10			2	25-	25	4-5	405		
Standard laboratory turnard			date of receipt. Accelera	ated turnaround may	y be asse	essed a s	urcharge).	188	cation of	samples:	Hrs.	48 Hrs.	(11	Week	Othe	r:		

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO: 209082108

Type: M

Desc:

Work ID: Crop Production Services

Report: REVIEW_RPT

WORKORDER SAMPLES

Status: WP

Project Seq: 94019

9:10

Created: 8/21/2009

Client: 3031 - Weston Solutions, Inc.

QA:

Profile: 157215 - Crop - Crop Production Services

PO:

			pH P	RESER'	VATIVE	VOA	HEADS	SPACE	
Container ID	Type	Preservative	Α	U	N\A	Α	U	N\A	CONTAINER CONDITION
20908210801-1	8	NONE	1		X			Х	ОК
20908210801-2	8	NONE			X			Х	ОК
Container ID	Type	Preservative	Α	U	N\A	Α	U	N\A	CONTAINER CONDITION
20908210802-1	8	NONE			X			X	ОК
20908210802-2	8	NONE			X			Х	ОК
Container ID	Type	Preservative	Α	U	N∖A	Α	U	N\A	CONTAINER CONDITION
20908210803-1	8	NONE			Х			X	ок
20908210803-2	8	NONE			X			Х	ОК
Container ID	Type	Preservative	Α	U	N\A	Α	U	N\A	CONTAINER CONDITION
20908210804-1	8	NONE			Х			X	ОК
20908210804-2	8	NONE			X			Х	ОК
Container ID	Type	Preservative	Α	U	N\A	Α	U	N\A	CONTAINER CONDITION
20908210805-1	8	NONE			X			Х	ОК
20908210805-2	8	NONE			X			Х	ОК
Container ID	Type	Preservative	Α	U	N\A	Α	U	N\A	CONTAINER CONDITION
20908210806-1	8	NONE			Х			Х	OK
20908210806-2	8	NONE			X			X	ОК
Container ID	Type	Preservative	Α	U	N\A	Α	U	N\A	CONTAINER CONDITION
20908210807-1	8	NONE			Х			X	ОК

A = ACCEPTABLE U = UNACCEPTABLE

20908210807-2

COOLER (S) TEMPERATURE

NONE

LIMIT = 4C + 1 - 2C

Χ

Custody Seal

X

OK

N\A = NOT APPLICABLE

MAXIMUM VOLATILE HEADSPACE BUBBLE 6MM

used [] Yes [] No in tact [] Yes [] No

LABEL(S) VERIFIED

CUSTODIAN

ATTACHMENT D START-3 SITE LOGBOOK



"Lite in the Rain" ALL-WEATHER JOURNAL No. 391

CROPPRODUCTION

SITUALIS

BOST BRYAN ROAD

ROADORE, SOFFERSON DAMS PARKY,

LOUISING A

TO -0001-09-08-04

ALL: WEATHER WRITING PAPER

Name CREP PROBUCTURE SCAPERS

Address GOST GRUY AU PAS

(20 Liciso, J. Efferson Atrice Commissions &

Phone

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Ay 12, 2008 70-0001-09-08-04 1600 START Robert Shennan DOPARDAY Boton Roses Fre Jeaning (BAR STAT SWIMM for Jonaines And DODT, MOST OSC BICK RHOMBERMY LOTA JULY MEYONS, Khim PMCB DADTER LAMBONY, HOLLY NOTYNAMS AND OTHORS. STATO POLICE INCLUSION ESPINS ViAsar, CIVIL SUPPORT TEAMS DESCRIBIAN SITUATION: FAZICITY IS ABAROLION - VAKENOUNS IN CYCLOSOMS somo man Boold, well makes to mass IN LOVER A WITH SUPPORT OF CST. 1915 SHOR son DOANT FIND DEPT. WILL MOST IN WAR MANT PAMICIAGE LOT A 0645 HIS 70monno w

TO-0001-09-08-04 Aux 13 2009 0645 STANT SHORWAN, OSC Rhotenberry at who mare PARKING LOT METRY, SOR, LSP, CST, OGS SAFETY BRIOTING BOING COD BY LOP CALRIS VIATOR 0710 ALL DEPARTING SORRINGS FOR SINT IN ROANDICE 0725 Annivers NOAR SITE, DEPORTURE rotholle by TI-10 Nonte my SIN IS AT INTORFETTIN BRYANRO ON No convor. 0730 Susning mocs. 16 5,00 spary METIME: WORK YOSKY: OBSONUT, DOLUMENT, STANT moticing as Entries. COLOMNAZ: CYLLADENS UNCLUBING ASTS HCN H25, COCI, SFE, CYATOGENCULORIDE WOATHORS CLOME, 80°F HIGH INTO 90'S 0740 LAGO WILL BE CONSUCTING AIR now rening - SOTTING UP ANDER PUTES SINGLE CAS movinous. LSP + CST ARE GOTTAGS ST UP. 1910 PRS-Enmy moreny, coins over DERON, SHROTY ETC

Aug 13 2029 +0-0001-09-08-04 0950 Total MARCIAL ENTRY 1017 GAST TOAM OUT, HAS DONE PENINSTER + OFFICE BUILDING, HAS NOT GONE INTO THE WAY - BOILDAG 1111 2nd Entry Term in, will BE GOING INTO THE BUILDING 1139 Entry TEAM Z coming out 1200 ENTRY TOAM 2 WOLL INTO MOD V BULLDING. NO REMOVES ABOVE BREES on motors, CYLINDONS IN POOR SHIPE THROUGHOUT THE BUILDING 1230 LSP, LD 52, COA IN MOTORIA TO DETERMINE NEXT STEPS 12.50 SMONAM FFEIN TO GOT WOULD 1325 SHimman on SITE. 1340 0525 LSP VIATOR REPEATE Truty PROPERTY OWNER BONG TOLD TO GERN UP IMMODITORY TO MIT CHE THE OMENGONCY 1410 FOST TOPA CID ARE M SITE 1430 START SHORMAN GOING WITH LDOD on AIR MOT MOTORY 1530 ENMY TOAM #3 (10, NG IN 445123

Al. 13, 20,9 10-0001-09-08-04 (600 Enmy 75Am #3 out 16/0 SHOR NON BUTCH AT SITE From offert An mon young, 2000 W/B ALL NOADING. NOTE: OSC MESTON BONNY MIB DER ANTIN STORE 16 >0 SPEANLIM WITE LSP WATER. 3nd ENTRY WAS ROTHENUM FILES. DED NOT FAISH, WILL MARKE MORE EN MISS TO COLLOY MONO FILS. 17-25 STANT SUSPLAN OFFSITE. WAS SPOREN WITH LSP VIANT + LDED WOTON LSP WILL MANTHA SECURITY PRESENCE. LDER WILL CONTINUE TO ARMORETM. CPS WILL GOOD THE OPPORTUNITY TO Cansut THE Romoute. CLISA brompar WILL BE MABILIZING FRUITMENT + PEDPLE = PLANTO START NONDAY 1930 Smormun by Btron range

40-80-90-1000-07 CIGT 8/20/09 CROP MODUCTION SERVICES 10830: START 3 HADNIN DEPARTS FOR CHAC (BUYIRONMENTER LAB) TO PICKUD SAMPLE ICE CHEST AND CHAIN OF. Custopys. Stant 3 Hapin Plans TO PICKLID SAMPLES (SITE AND TRANSPORT THEM BACK TO CACAL FOR ANALYSIS is 10936: STANT-3 HADON, - BANCO WESTON OFFICE AND CONTACTED I OBIAND STATE POLICE CHRIS VIATER TO FILDIOUT WHAT TABY WANT Samples Analyzes for; Officer VIATOR SAUS SAMPLES AND SUSPECTED TO CONTAIN (NAMIDE Ans WHAT THEM RAN FOR THAT. 11000: STANT 3 HADWIN DEPART FOR THES, TR' 1140. STANT 3 HAD WILL ARRIVES ONSTE OFFICER PONTER, STANT -3 HADWIN AND CONDUTS GAFRETY MERTING TOPICS INCLUDE LEYZL D PPE " CHEMICALS UMIOUS TOXIL GASRP PHYSICAL - TRAFFIL Bulling - Flore and Facina. WESTWER, SE 905 Heat Himing CLONDY W CHARLE'SF RAIN.

TDD TO-0001-09-08-04 · CIROP PHODUCTION SERVICES E/20/09 1151; CLARENCE E. ISOM/ CLEAN HARDONS / TEZINQUITES SAMPLES to STANT 3 HADNIN' MR. ISOM CONTECTED SAMORS ON 6/18+8/19 , total of of Samples (4 LIGUE Ano 3 Solio) Also, Louisima STATE POLICE OFFICER TOHO PONTER ASSISTED W/ SAMPLE (ASELING: ONLE SAMOVES WELL TROOS PERNED) STANT 3 HADINU ASKRO OFFICER RONFER IF COULD. AT LUSTOBY TABE ON SAMPLE : JANS, PORTER CROTES TAPE From Town of Transmics. of 1501 STARTIS HADWIN GRANTSSITE W SANGERS AFFER CUSTORY TOPR HAS BEEN RIT ON JANS BY MAKED THE SAMPLEY FOR TOTAL CYANIDE AND REACTIVE CHANNER ANALYSIS AND pH/ CORROSIVITY FOR Louis Samples only, --1631: STANT 3 HADWIN 6 GCAL AND TRANSPERLS SAMPLES TO (PLACE KEPRESSITATIVS.

CRUP PRODUCTION SERVICES SAMPLE INFO: (MACLICIC)

DRUM 1 - S. DRUM 1 - Solo TOTAL AND REACTIVE CN DRUM 2 - LIQUID TOTAL AND REACTIVE CN +PH DRUM 3 - LIQUID Drum 5 - Liquid Drumb - LIQUID Drum 7 - SoliO TOTAL AND REACTIVE CO Back Room - Solio - LAST LINE CA \$/20/09-

ATTACHMENT E POLLUTION REPORTS (POLREPS)

U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT

Crop Production Services - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region VI

Subject:

Crop Production Services

Roanoke, LA

Latitude: 30.3208500 Longitude: -92.7414400

To: Robert Sherman, Weston Solutions

From: William Rhotenberry, OSC

Date: 8/14/2009

Reporting Period:

1. Introduction

1.1 Background

Site Number: Contract Number:

D.O. Number: Action Memo Date:

Response Authority: CERCLA **Response Type:** Emergency

Response Lead: PRP Incident Category: Removal Assessment

NPL Status: Non NPL Operable Unit: Mobilization Date: 8/12/2009 Start Date:

Demob Date: Completion Date:

CERCLIS ID: RCRIS ID:

ERNS No.: State Notification:

FPN#: Reimbursable Account #:

1.1.1 Incident Category

1.1.2 Site Description

Crop Production Services is the owner of a warehouse at 8050 Bryan Road near Roanoke, LA. The facility was rented to a company called Stillwater Resources aka TL2 Gas which manufactured and packaged specific chemicals under contract to the Department of Defense. The company would mix a

specific chemical recipe and package it into cylinders for shipment to the Aberdeen Proving Grounds (APG). The cylinders were then returned to Stillwater/TL2 from APG. It is unclear whether the cylinders were returned completely empty.

The owner of Stillwater and TL2 Gas (Michael Annaker) has been conducting these activities for at leas 11 years. CPS recently notified the Louisiana Department of Environmental Quality that Mr. Annaker ha quit paying his rent and has abandoned the Bryan Road facility.

CPS contracted with Clean Harbors to conduct an assessment at the facility in July 2009. According to the Clean Harbors report there are approximately 600 cylinders located at the CPS warehouse. Known chemicals include hydrogen cyanide, arsenic pentafluoride, phosgene and many unknowns. Many of th cylinders exhibit extreme oxidation and are in poor condition.

1.1.2.1 Location

The facility is located at the intersection of Louisiana Highway 395 and Bryan Road, approximately 5 miles north of Roanoke, Jefferson Davis Parish, Louisiana. The facility is surrounded by agricultural fields growing rice and sugar cane.

The facility is a sheet metal building. A wood frame office building and a barn are located nex to the main building. The site is not fenced

1.1.2.2 Description of Threat

The facility contains hundreds of pressurized cylinders, many of which are in poor condition. Labels on the cylinders include hydrogen cyanide, arsenic pentafluoride, phosgene, cyanogen, cyanogen chloride, carbonyl sulfide, bromine trifluoride, chlorine, and iodine pentafluoride.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On 13 August 2009, Louisiana State Police (LSP), Louisiana Department of Environmental Quality (LDEQ), the 62nd Louisiana Civil Support Team (CST) and EPA OSC mobilized to th site in unified command. LSP/CST made entries into the building to assess the current situatic and conduct air monitoring. Entries were made in Level A PPE. Air monitoring did not detect readings above background indicating that none of the cylinders were leaking. LDEQ conducted air monitoring on the perimeter of the site.

2.1.2 Response Actions to Date

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal

2.2 Planning Section

2.2.1 Anticipated Activities

LSP and LDEQ will keep security at the site until the threat has been remediated. LDEQ has issued an Emergency Declaration and ordered CPS to conduct an immediate cleanup. CPS has tentatively agreed and is mobilizing Clean Harbors to the site to begin work on Monday Augus 17th. LDEQ will continue to conduct air monitoring at the site.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

- 2.3 Logistics Section
- **2.4 Finance Section**
- 2.5 Safety Officer
- 2.6 Liaison Officer
- 2.7 Information Officer

3. Participating Entities

3.1 Unified Command

The response was conducted in unified command. Louisiana State Police was the lead agency. Participating agencies include Louisiana Department of Environmental Quality, EPA, and the Lake Charles Fire Department.

3.2 Cooperating and Assisting Agencies

- 4. Personnel On Site
- **5. Definition of Terms**
- 6. Additional sources of information
 - 6.1 Internet location of additional information/reports
 - **6.2 Reporting Schedule**
- 7. Situational Reference Materials

U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT

Crop Production Services - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region VI

Subject: Final

Crop Production Services

Roanoke, LA

Latitude: 30.3208500 Longitude: -92.7414400

To: Robert Sherman, Weston Solutions

From: William Rhotenberry, OSC

Date: 8/26/2009 **Reporting Period:** 8/20/09

1. Introduction

1.1 Background

Site Number: Contract Number:

D.O. Number: Action Memo Date:

Response Authority: CERCLA **Response Type:** Emergency

Response Lead: PRP Incident Category: Removal Assessment

NPL Status: Non NPL Operable Unit: Mobilization Date: 8/12/2009 Start Date:

Demob Date: Completion Date:

CERCLIS ID: RCRIS ID:

ERNS No.: State Notification:

FPN#: Reimbursable Account #:

1.1.1 Incident Category

1.1.2 Site Description

Crop Production Services is the owner of a warehouse at 8050 Bryan Road near Roanoke, LA. The facility was rented to a company called Stillwater Resources aka TL2 Gas which manufactured and packaged specific chemicals under contract to the Department of Defense. The company would mix a

specific chemical recipe and package it into cylinders for shipment to the Aberdeen Proving Grounds (APG). The cylinders were then returned to Stillwater/TL2 from APG. It is unclear whether the cylinders were returned completely empty.

The owner of Stillwater and TL2 Gas (Michael Annaker) has been conducting these activities for at leas 11 years. CPS recently notified the Louisiana Department of Environmental Quality that Mr. Annaker ha quit paying his rent and has abandoned the Bryan Road facility.

CPS contracted with Clean Harbors to conduct an assessment at the facility in July 2009. According to the Clean Harbors report there are approximately 600 cylinders located at the CPS warehouse. Known chemicals include hydrogen cyanide, arsenic pentafluoride, phosgene and many unknowns. Many of th cylinders exhibit extreme oxidation and are in poor condition.

1.1.2.1 Location

The facility is located at the intersection of Louisiana Highway 395 and Bryan Road, approximately 5 miles north of Roanoke, Jefferson Davis Parish, Louisiana. The facility is surrounded by agricultural fields growing rice and sugar cane.

The facility is a sheet metal building. A wood frame office building and a barn are located nex to the main building. The site is not fenced

1.1.2.2 Description of Threat

The facility contains hundreds of pressurized cylinders, many of which are in poor condition. Labels on the cylinders include hydrogen cyanide, arsenic pentafluoride, phosgene, cyanogen, cyanogen chloride, carbonyl sulfide, bromine trifluoride, chlorine, and iodine pentafluoride.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On 20 August 2009, EPA START-3 returned to the site to receive seven samples for laboratory analysis. The samples were collected by Clarence E. Isom (Clean Harbors) on 18 and 19 August 2009 on behalf of Louisiana State Police. The samples were collected from suspected cyanide containing waste that was stored in six drums and from spilled solid material on the floor in the "back room" of the warehouse. On 20 August 2009 at 1631 hours, EPA START-3 relinquished the samples to Gulf Coast Analytical Services located in Baton Rouge, Louisiana for analysis. The samples consisted of four liquid and three solid samples and were to be analyzed for total cyanide (SW-846 9012A), reactive cyanide (SW-846 9012A), and corrosivit (SM 4500 H+B/SW-846 9040A) (liquid samples only). Preliminary analytical results are anticipated by 28 August 2009. The remainder of the cleanup activities at the site will be conducted by the Responsible Party under the supervision of LDEQ.

2.1.2 Response Actions to Date

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal

2.2 Planning Section

2.2.1 Anticipated Activities

Clean Harbors will work for the RP to remove imminent threats from the warehouse and demobilize from the site within a few days. The RP has submitted a plan to LDEQ to have the site completely remediated by February of 2010.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

The remainder of cleanup activities will be conducted under State supervision.

2.2.2 Issues

- 2.3 Logistics Section
- 2.4 Finance Section
- 2.5 Safety Officer
- 2.6 Liaison Officer
- 2.7 Information Officer
- 3. Participating Entities
 - 3.1 Unified Command

The response was conducted in unified command. Louisiana State Police was the lead agency. Participating agencies include Louisiana Department of Environmental Quality, EPA, and the Lake Charles Fire Department.

- 3.2 Cooperating and Assisting Agencies
- 4. Personnel On Site
- 5. Definition of Terms
- 6. Additional sources of information
 - 6.1 Internet location of additional information/reports
 - **6.2 Reporting Schedule**

7. Situational Reference Materials

Appendix F Digital Photographs

To View Photographs:

1) Open the Folder:

Crop Production Services--Crop Production_photos



2) Double click on the Icon (in the folder):





Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 01.JPG

Photo Type:

Direction: NW

Date/Time: Aug 13 2009 8:26AM

Latitude: 0

Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: LDEQ calibrating air monitoring equipment.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 03.JPG

Photo Type: Facility Overview

Direction: NE

Date/Time: Aug 13 2009 8:57AM

Latitude: 0

Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: Front door of the building.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 02.JPG

Photo Type:

Direction: NE

Date/Time: Aug 13 2009 8:57AM

Latitude: 0

Longitude:

Photographer: Robert Sherman

Witness:

Caption: CPS building.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 04.JPG

Photo Type:

Direction: W

Date/Time: Aug 13 2009 8:58AM

Latitude: 0

Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: CST trucks and equipment.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 05.JPG

Photo Type:

Direction: N

Date/Time: Aug 13 2009 9:17AM

Latitude: 0

Longitude:

Photographer: Robert Sherman

Witness:

Caption: Decon Line







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 06.JPG

Photo Type:

Direction: E

Date/Time: Aug 13 2009 9:20AM

Latitude: 0

Longitude:

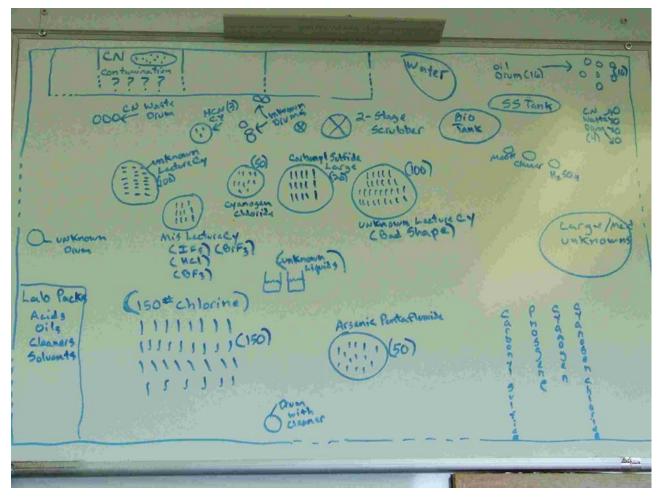
Photographer: Robert Sherman

Witness:

Caption: CST Trucks







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 08.JPG

Photo Type:

Direction: S

Date/Time: Aug 13 2009 9:54AM

Latitude: 0
Longitude: 0

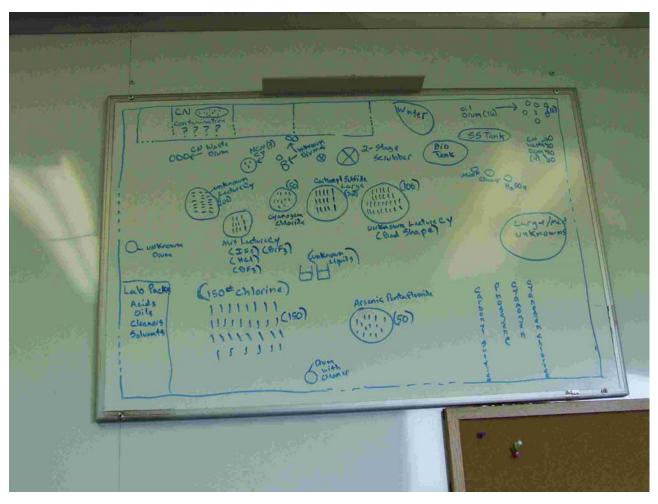
Photographer: Robert Sherman

Witness:

Caption: Layout of the building as drawn by Ed Isom of Clean Harbors.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 07.JPG

Photo Type:

Direction: S

Date/Time: Aug 13 2009 9:54AM

Latitude: 0
Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: Layout of the building as drawn by Ed Isom of Clean Harbors.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 09.JPG

Photo Type:

Direction: E

Date/Time: Aug 13 2009 11:07AM

Latitude: 0

Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: Level A Team suiting up for 2nd entry.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: CPS 10.JPG

Photo Type:

Direction: NE

Date/Time: Aug 13 2009 11:10AM

Latitude: 0

Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: Level A team making second entry.







Event Name: Crop Production Services

Incident Name: Crop Production

Photo Name: DSCF2649.JPG

Photo Type:

Direction: NE

Date/Time: Aug 13 2009 11:11AM

Latitude: 0

Longitude: 0

Photographer: Robert Sherman

Witness:

Caption: Level A team making second entry.



ATTACHMENT G TDD NO. TO-0001-09-08-04 AND AMENDMENT A

EPAU.S. EPA Washington, DC 20460

START3 Technical Direction Document

TDD #: TO-0001-09-08-04 Contract: EP-W-06-042

Response Activities- REMOVAL Funds (0001) Weston Solutions, Inc.

= required field			
TDD Name: C	rop Production Services	! Period: Base Period	
! Purpose: W	Vork Assignment Initiation		
! Priority: H	ligh	! Start Date: 08/12/2009	
Overtime: Y	es	! Completion Date: 10/30/2009	
! Funding Category: R	emoval	Invoice Unit:	
! Project/Site Name: C	rop Production Services	WorkArea: RESPONSE ACTIVITIE	ES .
Project Address: 8050 Bryan Road		Activity: Emergency Response	
County: Jefferson Davis Parish		Work Area Code:	
City, State: R	oanoke, LA	Activity Code: RV	
Zip:		EMERGENCY CODE: KAT RIT	
! SSID: A	687	FPN:	
CERCLIS:		Performance Based: No	
Operable Unit:			
Authorized TDD Ceili	ng:	Cost/Fee	LOE (Hours)
Р	revious Action(s):	\$0.00	0.0
	This Action:	\$10,000.00	0.0
	New Total:	\$10,000.00	0.0

Specific Elements - Identify active or historical facility processes or operations that may contribute to the release or threat of release of hazardous substances pollutants contaminants or discharge of oil, - Observe and document federal state and private actions taken to conduct a response action, - Document PRP activities and provide negotiation support, - Verify PRP compliance with enforcement orders, Provide technical advice findings facts recommendations and options.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriati on Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	RVC080	XXX	08	TCD	6A00E	302DC6C	2505	A6S7RV000	C001	\$10,000.00

Funding Summary:	Funding
Previous:	\$0.00
This Action:	\$10,000.00
Total:	\$10,000.00

Funding Category

Removal

Section

- Signed by William Rhotenberry/R6/USEPA/US on 08/14/2009 12:28:47 PM, according to Cheng Wei Fe

: William Rhotenberry Date: 08/14/2009

Project Officer Section - Signed by Cora Stanley/R6/USEPA/US on 08/17/2009 09:46:13 AM, according to C

Project Officer: Linda Carter Date: 08/17/2009

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 08/17/2009 09:46:13 AM, according

Contracting Officer: Cora Stanley Date: 08/17/2009

Contractor Section - Signed by Robert Beck/start6/rfw-start/us on 08/17/2009 11:52:28 PM, according to

No During the past three (3) calendar years has your company, or any of your employees that will

 \bigcirc Yes be working at this site, previously performed work at this site /facility?

Contractor Contact: Robert Beck Date: 08/17/2009

EPAU.S. EPA Washington, DC 20460

START3 Technical Direction Document

TDD #: TO-0001-09-08-04 Amendment#:A Contract: EP-W-06-042

Response Activities- REMOVAL Funds (0001) Weston Solutions, Inc.

= required field				
TDD Name:	Crop Production Services	! Period:	Base Period	
! Purpose:	Change Period of Performance, Incremental Funding			
! Priority:	Medium	! Start Date:	08/12/2009	
Overtime:	Yes	! Completion Date:	11/30/2009	
! Funding Category:	Removal	Invoice Unit:		
! Project/Site Name:	Crop Production Services	WorkArea:	RESPONSE ACTIVITIES	
Project Address:	8050 Bryan Road	Activity:	Emergency Response	
County:	Jefferson Davis Parish	Work Area Code:		
City, State:	Roanoke, LA	Activity Code:	RV	
Zip:		EMERGENCY CODE:	☐ KAT ☐ RIT	
! SSID:	A6S7	FPN:		
CERCLIS:		Performance Based:	No	
Operable Unit:				
Authorized TDD Ce	eiling:	Cost	/Fee	LOE (Hours)
	Previous Action(s):	\$10,00	0.00	0.0
	This Action:	\$3,00	0.00	0.0
	New Total:	\$13,00	0.00	0.0

Specific Elements - Identify active or historical facility processes or operations that may contribute to the release or threat of release of hazardous substances pollutants contaminants or discharge of oil, - Observe and document federal state and private actions taken to conduct a response action, - Document PRP activities and provide negotiation support, - Verify PRP compliance with enforcement orders, Provide technical advice findings facts recommendations and options.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment A: The State of Louisiana requested assistance from EPA in the analysis of samples collected at the site. The time and costs required to process the samples necessitates this amendment for additional funding and time to complete the final report.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriati on Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	RVC047	XXX	09	TCD	6A00E	302DC6C	2505	A6S7RV00	C001	\$3,000.00

Funding Summary:	Funding
Previous:	\$10,000.00
This Action:	\$3,000.00
Total:	\$13,000.00

Funding Category

Removal

Section

- Signed by William Rhotenberry/R6/USEPA/US on 10/15/2009 09:38:13 AM, according to Cheng Wei Fe : William Rhotenberry Date: 10/15/2009 Project Officer Section - Signed by Linda Carter/R6/USEPA/US on 10/20/2009 11:09:39 AM, according to CI Project Officer: Linda Carter Date: 10/20/2009 Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 10/20/2009 10:13:35 AM, according Contracting Officer: Cora Stanley Date: 10/20/2009 Contractor Section - Signed by Cécilia Shappee/start6/rfw-start/us on 10/21/2009 10:56:24 AM, accordir During the past three (3) calendar years has your company, or any of your employees that will No be working at this site, previously performed work at this site /facility? O Yes Contractor Contact: Cecilia Shappee Date: 10/21/2009